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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,275

07/25/2006

Kazuo Minemura

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32294 7590 09/16/2008  
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EXAMINER

ROE, JESSEE RANDALL

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

09/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,275	<b>Applicant(s)</b> MINEMURA ET AL.	
	<b>Examiner</b> Jessee Roe	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>25 July 2006</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Claims***

Claims 1-9 are pending wherein claims 2 and 5-8 have been preliminarily amended and claim 9 is new.

### ***Examiner Interpretation***

The Examiner interprets "a place" in the recitation "removing a passive film by heating said metal member in a place in which amino resin is present" to encompass embodiments that would not require the use of the amino resin to facilitate the removal of the passive film such as merely being present within the same facility where passive film removal is occurring due to heating.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Furono (US 4,504,324).

In regards to claims 1 and 5, Furono ('324) discloses a method of removing a spontaneously formed oxide film (passive film) on the surface of an aluminum alloy plate by heating in a 7% aqueous sodium hydroxide solution at 55°C for 3 minutes and then dipping the aluminum alloy into commercial reagent grade nitric acid (Comparative Example 1). Furono ('324) further discloses that the plate would be electrodeposited by using an electrodeposition bath of water soluble acryl melamine resin, which would read on the melamine resin as recited in claim 5. Alternatively, in Comparative Example 1, Furono ('324) does not specify that the nitric acid concentration would be high enough to bring the aluminum alloy plate to a passive state (col. 6, lines 39-55). However, it would have been obvious to one of ordinary skill in the art to modify the nitric acid concentration in order to achieve the desired aluminum surface passivity. MPEP 2144.05 II.

In regards to claims 2 and 4, Furono ('324) discloses baking at 190°C (which would occur in a furnace or oven) after electrodeposition (Comparative Example 1).

In regards to claim 3, Furono ('324) discloses an electrodeposition bath of water soluble acryl melamine resin (solvent) (Comparative Example 1).

In regards to claim 6-7, Furono ('324) discloses a coated aluminum plate (compound layer) after baking at 190°C (Comparative Example 1).

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furono (US 4,504,324) as applied to claims 6-7 above, and further in view of Gredelj et al. (Characterization of aluminum surfaces with and without plasma nitriding by X-ray photoelectron spectroscopy).

In regards to claims 8-9, Furono ('324) discloses a method of removing a spontaneously formed oxide film (passive film) on the surface of an aluminum (abstract) or aluminum alloy plate as shown above, but Furono ('324) does not specify nitriding or carburizing.

Gredelj et al. discloses that plasma nitriding can be used for surface hardening aluminum if the oxide layer is removed (pg. 240, col. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply plasma nitriding, as disclosed by Gredelj et al., to the aluminum having a removed oxide film, as disclosed by Furono ('324), in order to successfully harden the surface of the aluminum, as disclosed by Gredelj et al. (pg. 240, col. 2).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571) 272-5938. The examiner can normally be reached on Monday-Friday 7:30 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Sheehan/  
Primary Examiner, Art Unit 1793

JR